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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/784,665	02/15/2001	Yiqun Wang	1001.1412101	2225
28075 7590 12/28/2007 CROMPTON, SEAGER & TUFTE, LLC 1221 NICOLLET AVENUE SUITE 800 MINNEAPOLIS, MN 55403-2420			EXAMINER ALI, SHUMAYA B	
			ART UNIT 3771	PAPER NUMBER
			MAIL DATE 12/28/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 09/784,665	Applicant(s) WANG ET AL.	
	Examiner Shumaya B. Ali	Art Unit 3771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-36 is/are pending in the application.
- 4a) Of the above claim(s) 31-34,36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-30 and 35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

Claims 22-36 are pending in the instant application and claims 1-22 has been cancelled.

Claims 31-34 and 36 are previously withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 22-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 22 lines 2 and 3 "a guidewire lumen defined therein, and an inflation lumen defined therein" is indefinite. Location of guidewire lumen and inflation lumen is not clear.

In claim 23 lines 2 "a closed plane figure" is indefinite. It is not clear what shape is limited by said closed plane figure.

In claim 29 line 1 and 2 "releasably attached" is indefinite. It appears that applicant is claiming a method step. It is not clear what structure is needed to releasably attach the seal to the flange region.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 22-29 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson et al. US 5,637,086 in view of Foley US 3,409,016.

As to claim 22, Ferguson in his specification and drawings (figures 1-9) discloses a catheter (10) comprising an elongate catheter shaft (11) having a proximal end (end where 24 is located) and a distal end (end where 15 is located), a guide wire lumen (15) defined therein, an inflation lumen (14) defined therein; a balloon (15) disposed adjacent the distal end of the catheter shaft. Figure 1 of Ferguson clearly shows the balloon being in fluid communication with the inflation lumen. Ferguson in figure 1 further discloses a port (port at the proximal most end of 24) disposed at the proximal end of the catheter shaft, the port inherently having an opening defined therein that is in fluid communication with the inflation lumen (see col.4, lines 39-42) and a flanged end (proximal end portion of 24 is flanged as shown in figure 1, see also labeled fig.1). Ferguson however lacks a seal member attached to the flanged end and covering the opening. However, Foley in his specification and drawings (see figures 1-5) teaches a balloon catheter with a seal/plug (fig.4, 38) disposed at the proximal most end of an inflation port (port

through 36 where 38 is engaged) covering the opening though the port. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ferguson in order to provide a seal for the purposes of preventing fluid passage though the port as taught by Foley (see col.3, lines 71-74).

As to claim 23, Foley in figure 4 shows a cross-sectional surface area of the seal, which is defined by a closed plane figure.

As to claim 24, Foley in figure 4 shows the top portion of the seal engaging the proximal end portion of the port is generally planar.

As to claim 25, Ferguson as modified lacks the seal extends laterally beyond the flanged end of the port. However, whether a seal extends beyond the flanged end is a design consideration, which depends on the size and shape of the flange and seal. One of ordinary skills in the art would be motivated to make the seal such that it can extend laterally beyond the flanged end of the port to provide a stronger supporting structure for structure supported by the seal, i.e., needle/syringe used for inflating the catheter balloon. Furthermore, an extended seal that covers beyond the flange leaves no room for airflow though the opening periphery of the port, thus better seals the port.

As to claim 26, Foley in col.4, lines 5 and 6 teaches "a needle penetrated" the seal (38). Figure 4 of Foley further shows a needled piercing the seal (38). Thus the seal of Foley is pierceable.

As to claim 27, Foley in col.3, lines 71 and 72 teaches seal (38) is self-sealing.

As to claim 28, Foley in figure 4 teaches the seal defines the proximal-most end of the port.

As to claim 29, Foley in col.3, lines 71 and 72 teaches the seal is a plug and plug known in the art is releasably attached to a port. Thus, the seal of Foley can be releasably attached to the flanged region.

As to claim 35, Ferguson in his specification and drawings (figures 1-9) discloses a balloon catheter (10) comprising an elongate catheter shaft (11) having a proximal end region (end where 24 is located), a proximal port (port at the proximal most end of 24) disposed adjacent the proximal end region, a distal end region (end where 15 is located), and an inflation lumen (14) extending between the port and the balloon; wherein the port includes a proximal end (where flanged is located, see fig.1), a proximal flange (see labeled fig.1, attachment below), and a proximal end surface defined by the proximal end and the proximal flange (see labeled fig.1). Ferguson lacks a seal. Ferguson in view of Foley teaches a seal as applied for claim 22.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferguson et al. US 5,637,086 in view of Foley US 3,409,016 and in view of Walker US 5,322,513.

As to claim 30, Ferguson lacks a cap over the seal. However, Walker in figure 2 teaches a cap (48) fitted over a seal (col.7, lines 60-67) to cover a port (51). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ferguson in order to provide a cap over the seal for the purposes of cover the passage through the a port as taught by Walker. One of ordinary skill in the art furthermore would be motivated to provide a cover over the seal for the purposes of keeping the seal sterile.

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

Applicant's arguments with respect to claims 22-36 have been considered but are moot in view of the new ground(s) of rejection. With respect to claims 31-34 and 36, in a paper filed on 8/25/05 Applicant elected apparatus claims 22-30 and 35 and method claims 31-34 and 36 were withdrawn without traverse.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art made of record not relied upon cited in PTO form 892 pertain to balloon catheter.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shumaya B. Ali whose telephone number is 571-272-6088. The examiner can normally be reached on M-W-F 8:30am-5:00 pm.

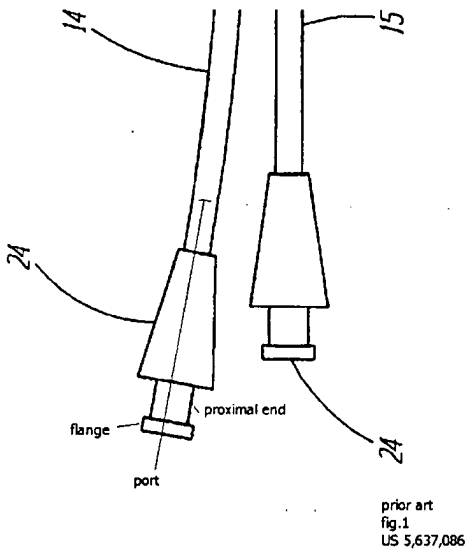
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 571-272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Application/Control Number:
09/784,665
Art Unit: 3771

Page 7

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Shumaya B. Ali
Examiner
Art Unit 3771
12/17/07




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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700
12/20/07